

From: "Steve Regele"

To: SCapoccia

Subject: Berkeley Pit Superfund Site, Avian impacts working group Meeting today,

Date: Thu, 2 Feb 2017 15:54:11 GMT

Dr. Capoccia,

Thank you for the time on the phone this morning about today's meeting regarding Berkeley Pit impacts. Thanks also to the group for engaging in evaluation and implementation of methods to mitigate these problems. As we spoke, I cannot attend today's meeting but I did quickly put together a few points for consideration during the meeting. I appreciate you taking these to the group. I hope to remain in the loop as discussions and resolutions move forward.

Excerpting from and in addition to the Sacajawea Audubon Society letter to EPA dated December 9, 2017 and the Yellowstone Valley Audubon Society (YVAS) letter of January 5, 2017:

1) Sacajawea (12/9/17):

**It seems that EPA, USFWS other agencies, groups and individuals must conclude that the current bird hazing protocols that are in place at the pit are not effective and need to be replaced** with a structural barrier to prevent future instances like this (recent death of thousands of snow geese due to Berkeley Pit toxic water). It is not feasible for any bird hazing program to be effective for all seasons, bird migration patterns, and local bird water needs. We question whether any bird hazing and monitoring program is capable of being effective 24 hours/day for every day of the year. It is likely that migrating and local birds are landing at the pit for water during daylight and night hours, including times that the bird hazing program is ineffective. It is apparent that global climate change is causing bird migration patterns to change, which could bring more birds to the Berkeley Pit area.

Structural Barrier options that should be considered include a suspended net and/or a floating net over the pit to prevent water contact. We realize that the pit water area is quite large and that these options will be expensive. However, the cost is justified in order to prevent a recurrence of this massive bird kill, subsequent contamination of scavenger birds and mammals, and possible consumption of contaminated birds by waterfowl hunters.

2) YVAS agrees with and supports points raised in the Sacajawea letter of 12/9/17.

Additionally YVAS submits:

- Expedite implementation of effective and permanent solutions at the Berkeley Pit superfund site to protect waterfowl and other wildlife AVIAN species, as well as all the human users and uses affected;

- Monitoring system necessary to accurately evaluate: pit site mitigation success/failure; bird use; bird and other wildlife mortality at the Pit site; mortality of birds after landing at the Pit site;
- Consideration, monitoring and mitigation of likelihood that birds contaminated by Berkeley Pit water travel distances and are harvested by and affecting humans or various wildlife species consuming contaminated birds;
- Evaluation of possibilities of effects of Berkeley Pit toxic water on non-game avian species e.g. shorebirds;
- What other industrial sites in Montana might also be contaminating birds and food chains (e.g. Zortman/Landusky mine, Colstrip). Evaluate and implement findings from this necessary and worthwhile Berkeley Pit mitigation effort at other relevant sites.

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